

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To: PAUL KROON
GROSSMAN, TUCKER, PERREAULT &
PFLEGER, PLLC
55 SO. COMMERCIAL ST.
MANCHESTER, NH 03101

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference ART063PCT	Date of mailing (day/month/year) 19 MAY 2011
International application No. PCT/US2011/027451	International filing date (day/month/year) 07 March 2011
Applicant ARTHROSURFACE INCORPORATED	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
 The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest against payment of (an) additional fee(s) under Rule 40.2,** the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90bis.1 and 90bis.3).

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774
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PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

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NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

To: PAUL KROON
GROSSMAN, TUCKER, PERREAULT &
PFLEGER, PLLC
55 SO. COMMERCIAL ST.
MANCHESTER, NH 03101

Date of mailing
(day/month/year)

19 MAY 2011

Applicant's or agent's file reference
ART063PCT

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.
PCT/US2011/027451

International filing date
(day/month/year) 07 March 2011

Applicant ARTHROSURFACE INCORPORATED

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

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3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.

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4. **Reminders**

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Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

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In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Name and mailing address of the ISA/
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
Facsimile No. 571-273-3201

Authorized officer

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300

Telephone No. PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference ART063PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2011/027451	International filing date (<i>day/month/year</i>) 07 March 2011	(Earliest) Priority Date (<i>day/month/year</i>) 05 March 2010
Applicant ARTHROSURFACE INCORPORATED		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 3

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/027451

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61B 17/58 (2011.01)

USPC - 606/88

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - A61B 17/56, 17/58, 17/60; A61F 5/00 (2011.01)

USPC - 606/79, 80, 82, 83, 84, 85, 86, 87, 88

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,575,980 B1 (ROBIE et al) 10 June 2003 (10.06.2003) entire document	1-19
A, P	US 7,708,741 B1 (BONUTTI) 04 May 2010 (04.05.2010) entire document	1-19
A	US 2002/0173797 A1 (VAN ZILE et al) 21 November 2002 (21.11.2002) entire document	1-19
A	US 2002/0156480 A1 (OVERES et al) 24 October 2002 (24.10.2002) entire document	1-19

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

18 April 2011

Date of mailing of the international search report

19 MAY 2011

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: PAUL KROON
GROSSMAN, TUCKER, PERREAULT &
PFLEGER, PLLC
55 SO. COMMERCIAL ST.
MANCHESTER, NH 03101

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

19 MAY 2011

Applicant's or agent's file reference
ART063PCT

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US2011/027451

International filing date (day/month/year)

07 March 2011

Priority date (day/month/year)

05 March 2010

International Patent Classification (IPC) or both national classification and IPC

IPC(8) - A61B 17/58 (2011.01)

USPC - 606/88

Applicant **ARTHROSURFACE INCORPORATED**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
Facsimile No. 571-273-3201

Date of completion of this opinion

18 April 2011

Authorized officer:

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300
PCT OSP: 571-272-7774

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2011/027451

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
 - a. (means)
 - ☐ on paper
 - ☐ in electronic form
 - b. (time)
 - ☐ in the international application as filed
 - ☐ together with the international application in electronic form
 - ☐ subsequently to this Authority for the purposes of search
4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2011/027451

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-19	YES
	Claims	None	NO
Inventive step (IS)	Claims	1-19	YES
	Claims	None	NO
Industrial applicability (IA)	Claims	1-19	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-19 meet the criteria set out in PCT Article 33(2)-(3) because the prior art does not teach or fairly suggest certain subject matter in the claims, as follows:

Regarding Claim 1, the prior art of record, individually or in combination, does not teach or fairly suggest an implant resection system for preparing an implant site to replace a defect in an articular surface of a first bone, said implant resection system comprising a guide configured to be coupled generally perpendicular to said first bone proximate to said defect, said guide comprising a body portion defining a plurality of excision passageways, said excision passageways each defining a generally cylindrical core pathway configured to extend generally perpendicular to said first bone which partially overlaps with an adjacent generally cylindrical core pathway, wherein a projection associated with each of said plurality of said generally cylindrical core pathways defines a truncated cylindrical excision site extending through a portion of said articular surface, and wherein each truncated cylindrical excision site partially overlaps with at least one adjacent truncated cylindrical excision site.

Regarding Claim 19, the prior art of record, individually or in combination, does not teach or fairly suggest a method for preparing an implant site to replace a defect in an articular surface, said method comprising securing a guide to bone proximate said defect, said guide comprising a body portion defining a plurality of excision passageways, each excision passageway defining a generally cylindrical core pathway which partially overlap with an adjacent generally cylindrical core pathway; and advancing at least one drill through said plurality of excision passageways along said generally cylindrical core pathways to form a plurality of partially overlapping truncated cylindrical excision sites extending through said articular surface.

Claims 2-18 depend from base Claim 1 and therefore have novelty for at least the same reasons as do base Claim 1.

The following prior art is made of record to support and further define the reasons for allowance of base Claims 1 and 19:

(i) Robie teaches an implant resection device (Title; Abstract) for preparing an implant site to replace a defect in an articular surface of a first bone (Col. 2, Lns 4-6, instrument for use in shaping the distal surface of a femur preparatory to implantation of a knee prosthesis), but Robie does not teach, either alone or in combination with the prior art of record, said implant resection system comprising a guide configured to be coupled generally perpendicular to said first bone proximate to said defect, said guide comprising a body portion defining a plurality of excision passageways, said excision passageways each defining a generally cylindrical core pathway configured to extend generally perpendicular to said first bone which partially overlaps with an adjacent generally cylindrical core pathway, wherein a projection associated with each of said plurality of said generally cylindrical core pathways defines a truncated cylindrical excision site extending through a portion of said articular surface, and wherein each truncated cylindrical excision site partially overlaps with at least one adjacent truncated cylindrical excision site.

(ii) Overes teaches a device in the art that is of a similar construction based on the design claims, but Overes does not teach, either alone or in combination with the prior art of record, said implant resection system comprising a guide configured to be coupled generally perpendicular to said first bone proximate to said defect, said guide comprising a body portion defining a plurality of excision passageways, said excision passageways each defining a generally cylindrical core pathway configured to extend generally perpendicular to said first bone which partially overlaps with an adjacent generally cylindrical core pathway, wherein a projection associated with each of said plurality of said generally cylindrical core pathways defines a truncated cylindrical excision site extending through a portion of said articular surface, and wherein each truncated cylindrical excision site partially overlaps with at least one adjacent truncated cylindrical excision site.

Claims 1-19 meet the criteria set out in PCT Article 33(4) and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Search History:

Complete Classification Search

The Patent Analyst performed a complete classification search within the following US, IPC, ECLA, or F-Term classification areas:

ECLA Class/Subclass(es): A61B 17/56, 17/58; A61F 5/00 (2011.01)

U.S. Class/Subclass(es): 606/82, 83, 84, 85

See Global Search Results.

Limited Classification Search

The Patent Analyst performed a limited classification search within the following US, IPC, ECLA, or F-Term classification areas:

ECLA Class/Subclass(es): A61B 17/60 (2011.01)

U.S. Class/Subclass(es): 606/79, 80, 86, 87, 88

See Global Search Results.

Global Patent Literature Text Search

The Patent Analyst performed the following global text search, which was not limited by classification but may or may not have been limited by other criteria:

PATBASE

- 1) (FT=((implant or prosthetic) and (replace* or remov*) and (bone))) (35766)
- 2) 1 and (core) and (surface) (1082)
- 3) 2 and (spoon or concave) (112)
- 4) (INV=(steven ek)) (12)
- 5) (PA=(kroon paul)) (2)
- 6) (FT=((bone or osteo*) and (resurface or replace) and (articulate or articular))) (3737)
- 7) 6 and (spoon or concave) (433)
- 8) (bone or osteo) and (resurface or grind*) (1436)
- 9) 8 and (jig) and (concave) (0)
- 10) 8 and (jig) (2)
- 11) 8 and (femur or femoral) (42)

12) (PN=(US7708741)) (1)

13) PN=(EP0520737 OR EP1245204 OR EP1317911 OR FR2682287 OR US2002127264 OR US2002138150 OR US2002198528 OR US2002557755 OR US2003093079 OR US2003100906 OR US2003100907 OR US2003130665 OR US2003153923 OR US2003158606 OR US2003163137 OR US2003171757 OR US2003181984 OR US2003212403 OR US2003220697 OR US2003225458 OR US2003236523 OR US2004039395 OR US2004143338 OR US2004204760 OR US2004260301 OR US2005043807 OR US2007173946 OR US2008147075 OR US2589720 OR US3229006 OR US3624747 OR US3807393 OR US3811449 OR US3852830 OR US3903549 OR US3911923 OR US3920022 OR US3967625 OR US3989049 OR US3991426 OR US3994287 OR US4000525 OR US4053953 OR US4085466 OR US4085743 OR US4103680 OR US4203444 OR US4209012 OR US4224696 OR US4298992 OR US4299224 OR US4311145 OR US4344193 OR US4373709 OR US4374523 OR US4385404 OR US4457302 OR US4509518 OR US4545375 OR US4565192 OR US4574794 OR US4619391 OR US4624254 OR US4641648 OR US4646738 OR US4662372 OR US4682598 OR US4685460 OR US4719908 OR US4721104 OR US4739751 OR US4759350 OR US4817602 OR US4911721 OR US4936852 OR US4950298 OR US4952213 OR US4961954 OR US4964865 OR US4979949 OR US4983179 OR US4985038 OR US5007912 OR US5021056 OR US5032132 OR US5035699 OR US5037423 OR US5053039 OR US5060678 OR US5098436 OR US5098437 OR US5099859 OR US5100409 OR US5100689 OR US5108441 OR US5111987 OR US5123906 OR US5152744 OR US5152778 OR US5154717 OR US5163949 OR US5170800 OR US5171243 OR US5171244 OR US5171276 OR US5174300 OR US5176684 OR US5176702 OR US5178622 OR US5183053 OR US5183464 OR US5186178 OR US5197488 OR US5197968 OR US5197971 OR US5197987 OR US5207692 OR US5217463 OR US5226915 OR US5228459 OR US5234433 OR US5258004 OR US5258032 OR US5263498 OR US5263987 OR US5269785 OR US5273524 OR US5275166 OR US5282803 OR US5282866 OR US5285773 OR US5293878 OR US5295994 OR US5304181 OR US5306311 OR US5308349 OR US5312411 OR US5314482 OR US5320611 OR US5322505 OR US5342368 OR US5344423 OR US5344458 OR US5348541 OR US5358530 OR US5358643 OR US5360016 OR US5364402 OR US5368599 OR US5379133 OR US5395376 OR US5395401 OR US5403319 OR US5405395 OR US5415663 OR US5417695 OR US5425355 OR US5425745 OR US5425775 OR US5445639 OR US5454365 OR US5454815 OR US5454816 OR US5456268 OR US5456720 OR US5462549 OR US5470354 OR US5472415 OR US5484095 OR US5497933 OR US5514139 OR US5514143 OR US5514153 OR US5520692 OR US5520694 OR US5520695 OR US5522897 OR US5540695 OR US5540696 OR US5549683 OR US5554169 OR US55569163 OR US55569259 OR US55570700 OR US55578039 OR US55593448 OR US55597379 OR US5601565 OR US5609603 OR US5609644 OR US5624463 OR US5632745 OR US5643272 OR US5649946 OR US5658292 OR US5662710 OR US5667069 OR US5667512 OR US5667520 OR US5669914 OR US5681316 OR US5682886 OR US5683397 OR US5702447 OR US5702475 OR US5707350 OR US5712543 OR US5716360 OR US5718708 OR US5720752 OR US5722978 OR US5723331 OR US5733292 OR US5735904 OR US5741264 OR US5743915 OR US5749876 OR US5755731 OR US5755791 OR US5755803 OR US5763416 OR US5769855 OR US5769899 OR US5772594 OR US5776200 OR US5788700 OR US5792139 OR US5810827 OR US5817109 OR US5842477 OR US5846931 OR US5853415 OR US5860980 OR US5860981 OR US5866415 OR US5871018 OR US5871493 OR US5871541 OR US5871543 OR US5879354 OR US5880976 OR US5888219 OR US5897559 OR US5899914 OR US5908424 OR US5911723 OR US5913874 OR US5916219 OR US5916220 OR US5916269 OR US5921990 OR US5944722 OR US5947973 OR US5957926 OR US5961499 OR US5961523 OR US5971989 OR US5980526 OR US5995738 OR US5997566 OR US6001106 OR US6002859 OR US6012456 OR US6013103 OR US6015419 OR US6019767 OR US6022350 OR US6024746 OR US6027504 OR US6034296 OR US6056754 OR US6059788 OR US6059817 OR US6059831 OR US6063095 OR US6068633 OR US6077269 OR US6077270 OR US6077287 OR US6086593 OR US6090122 OR US6099531 OR

US6099532 OR US6102850 OR US6102916 OR US6118845 OR US6132468 OR US6146386 OR
US6159246 OR US6165223 OR US6171340 OR US6174314 OR US6174321 OR US6176880 OR
US6185315 OR US6187010 OR US6187023 OR US6195168 OR US6197064 OR US6198794 OR
US6205411 OR US6206927 OR US6211976 OR US6214011 OR US6214051 OR US6228090 OR
US6228121 OR US6241735 OR US6258095 OR US6258127 OR US6264701 OR US6277136 OR
US6280476 OR US6290703 OR US6296646 OR US6299645 OR US6306169 OR US6306172 OR
US6325806 OR US6328572 OR US6338730 OR US6338737 OR US6342075 OR US6352558 OR
US6358266 OR US6379387 OR US6391040 OR US6398815 OR US6406495 OR US6409722 OR
US6413279 OR US6423096 OR US6431743 OR US6478799 OR US6488687 OR US6491726 OR
US6494914 OR US6500181 OR US6514259 OR US6540786 OR US6551324 OR US6554838 OR
US6558391 OR US6558421 OR US6575980 OR US6589248 OR US6589281 OR US6589283 OR
US6616696 OR US6623526 OR US6629997 OR US6632225 OR US6648896 OR US6695848 OR
US6702821 OR US6709460 OR US6723102 OR US6743258 OR US6749638 OR US6755865 OR
US6770077 OR US6770078 OR US6793676 OR US6827723 OR US6858032 OR US6859661 OR
US6986791 OR US7048741 OR US7104996 OR US7105027 OR US7244274 OR US7422605 OR
US7510557 OR US9672039 OR USD358647 OR USD462767 OR WO0217821 OR WO9514444
OR WO9725006 OR WO9832384 OR WO9913803 OR WO9940864) (293)

14) PN=(AU2002336798 OR EA007729 OR US6117138 OR US6468280 OR US6565570 OR
US6695841 OR US6695848 OR US6699252 OR US6780190 OR US6796986 OR US7104996 OR
US7114501 OR US7237556 OR US7344541 OR US7419491 OR US7477926 OR US7510557 OR
US7547307 OR US7611516 OR US7615054 OR US7635390 OR US7708740 OR US7708741 OR
US7749229 OR US7764985 OR US7794467 OR US7806896 OR US7806897 OR US7815645 OR
US7828852 OR US7837736 OR US7857814 OR US7862570 OR US7892236 OR WO03037192
OR WO05027759 OR WO06022923 OR WO08049604 OR US4335715 OR US4349018 OR
US4421112 OR US4565191 OR US4627425 OR US4750481 OR US4787383 OR US4892093 OR
US5021056 OR US5053039 OR US5246444 OR US5304180 OR US5474559 OR US5486178 OR
US5540695) (45)

15) PN=(DE10335410 OR EP2138107 OR US7686813 OR WO10131121 OR AU2004266089 OR
EP1457160 OR US7615055 OR US7771473 OR WO05102178 OR WO07036699 OR
WO08005627 OR AU2004201929 OR US7063706 OR US7104996 OR US7235080 OR
US7442196 OR US7510557 OR US7520880 OR US7578821 OR US7615054 OR US7635390 OR
US7641663 OR US7648510 OR US7708740 OR US7708741 OR US7744600 OR US7749229 OR
US7806896 OR US7806897 OR US7828852 OR US7837691 OR US7837736 OR US7892236 OR
EP0809969 OR US3200501 OR US4501266 OR US5669914) (31)

16) PN=(EP1260183 OR EP1263331 OR EP1263332 OR EP1550416 OR EP2123229 OR
US5735904 OR US5902339 OR US6059831 OR US6554838 OR US6743258 OR US6770077 OR
US6916324 OR US6916341 OR US6969393 OR US7060074 OR US7104996 OR US7141053 OR
US7172596 OR US7172597 OR US7344540 OR US7371240 OR US7442196 OR US7510558 OR
US7520901 OR US7578821 OR US7604641 OR US7615054 OR US7618422 OR US7618462 OR
US7621920 OR US7635390 OR US7658741 OR US7678115 OR US7678151 OR US7699853 OR
US7708740 OR US7708741 OR US7713305 OR US7749229 OR US7806897 OR US7815645 OR
US7828852 OR US7828853 OR US7837691 OR US7837736 OR US7846162 OR US7857814 OR
US7857817 OR US7892236 OR US7896883 OR US7896885 OR US7896922 OR US7901408 OR
US7909825 OR US7914533 OR US7914545 OR US7922771 OR WO0166021 OR WO0166022
OR WO05076834 OR EP0104732 OR US4787383 OR US5116338 OR US5122144 OR
US5304181 OR US5314482) (51)

17) (UC=(606/79)) (658)

- 18) (UC=(606/80)) (856)
19) (UC=(606/82)) (170)
20) (UC=(606/83)) (104)
21) (UC=(606/84)) (178)
22) (UC=(606/85)) (162)
23) (UC=(606/86)) (1210)
24) (UC=(606/87)) (554)
25) (UC=(606/88)) (482)
26) 25 and surface (376)
27) 26 and (spoon or concave) (40)
28) (EC=(A61F5/00)) (118)
29) (EC=(A61B17/56)) (26)
30) (EC=(A61B17/58)) (134)
31) (EC=(A61B17/60)) (152)

Computer Accessed Text Databases Searched

Database: Google Scholar

No. of Hits	Text String	Date	Other Limiting Criteria
3,310	bone articulating surface scraper	18 April 2011	
282	bone articulating surface scraper with spoon	18 April 2011	

Other Databases

No additional data bases were searched.

Publication search

A publication search was not performed in this examination.

Date search was completed: 18 April 2011

MP/JMW